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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/795,981	03/10/2004	Hisashi Nagata	1035-499	2189

23117 7590 12/14/2004
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EXAMINER


DUONG, THOI V

ART UNIT	PAPER NUMBER
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2871

DATE MAILED: 12/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/795,981	Applicant(s) NAGATA ET AL.	
	Examiner Thoi V Duong	Art Unit 2871	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 March 2004.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9-30,32,33 and 35-41 ~~is/are~~ pending in the application.
4a) Of the above claim(s) 16-27,29,30,32,33 and 38-41 ~~is/are~~ withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 9-11,13-15,28 and 35-37 ~~is/are~~ rejected.
7) ☒ Claim(s) 12 ~~is/are~~ objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 09/520,609.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>0304</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. This application appears to be a division of Application No. 09/520,609, filed 03/07/2000. A later application for a distinct or independent invention, carved out of a pending application and disclosing and claiming only subject matter disclosed in an earlier or parent application is known as a divisional application or "division." The divisional application should set forth the portion of the earlier disclosure that is germane to the invention as claimed in the divisional application.

Election/Restrictions

2. Applicant's election of Species III (claims 9-15, 28 and 35-37 in the reply filed on March 10, 2004 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Accordingly, claims 1-8, 31 and 34 were cancelled. Currently claims 16-27, 29, 30, 32, 33 and 38-41 are non-elected and claims 9-15, 28 and 35-37 are considered in this application.

Double Patenting

3. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in

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scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

4. Claim 35 is rejected under 35 U.S.C. 101 as claiming the same invention as that of claim 10 of prior U.S. Patent No. 6,784,949 B1. This is a double patenting rejection. Claims 36 and 37 are also rejected since they are dependent on claim 35.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 9, 11 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Kakuda et al. (USPN 5,162,933).

As shown in Fig. 8, Kakuda et al. discloses an active matrix substrate, comprising:

a pixel electrode 14 provided in each pixel area bounded by a scanning line 13 and a signal line 11 that are disposed in a matrix as a whole;

a switching element 20 connected to the scanning line, the signal line, and the pixel electrode;

a storage capacitor electrode 17 for constituting a storage capacitor 19 (col. 4, lines 12-19); and

a storage capacitor common wire 29 disposed parallel to the signal line so as to be connected to the storage capacitor electrode 17 (Figs. 3 and 5 and col. 10, lines 36-45),

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wherein the storage capacitor 19 is formed between the pixel electrode 14 and the storage capacitor electrode 17 (col. 4, lines 29-36), and

the scanning line 13 and the storage capacitor electrode are fabricated from a single electrode layer through patterning thereof (col. 10, lines 36-45).

Re claim 11, the active matrix substrate further comprises an interlayer insulation film 25 (gate insulating film) on which the pixel electrode is provided.

Re claim 13, the active matrix substrate further comprises a gate insulation film 25 for covering a gate electrode 13G of the switching element,

wherein the pixel electrode 14 is disposed opposing the storage capacitor electrode 17 across the gate insulation film 25 (Fig. 8).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kakuda et al. (USPN 5,162,933) in view of Hibino et al. (USPN 6,529,251 B2).

Kakuda et al. discloses an active matrix substrate comprising a protection film 36 for covering the switching element 20 as recited in claims 14 and 15 except for an interlayer insulation film interposed between the pixel electrode and the protection film.

As shown in Fig. 1, Hibino et al. discloses an active matrix substrate comprising a protection film 24 for covering a switching element and an interlayer insulation film 23

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interposed between a source electrode 20 (Applicant's second pixel electrode) and the protection film 24 (col. 5, lines 59-65) to prevent the etching liquid from reaching the metal electrode and thus protecting the metal electrode from erosion (col. 4, lines 21-29),

wherein, a contact hole 25 is formed through the interlayer insulation film and the protection film so as to electrically connecting the pixel electrode 26 (Applicant's first pixel electrode) to the switching element

Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the active matrix substrate of Kakuda et al. with the teaching of Hibino et al. by forming a protection film for covering the switching element and an interlayer insulation film interposed between the pixel electrode and the protection film to prevent the etching liquid from reaching the metal electrode and thus protecting the metal electrode from erosion during the patterning of the pixel electrode (col. 4, lines 21-29).

9. Claims 10 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kakuda et al. (USPN 5,162,933) in view of Shimada et al. (USPN 5,877,830).

Kakuda et al. discloses an active matrix substrate that is basically the same as that recited in claims 10 and 28 except for the signal line and the pixel electrode being fabricated from a single conductive layer through patterning thereof, and the scanning line being anodized.

As shown in Figs. 2 and 3, Shimada et al. discloses an active matrix substrate 1 comprising a TFT 250, wherein a scanning electrode 2a having anodized film 2d and a

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connecting electrode 7b (Applicant's pixel electrode) and a signal line 7a are fabricated from a single conductive layer through patterning thereof (col. 4, line 46 and col. 5, line 23 and col. 6, lines 45-67).

Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the active matrix substrate of Kakuda et al. with the teaching of Shimada et al. by having the scanning electrode anodized, and the signal line and the pixel electrode being fabricated from a single conductive layer through patterning thereof so as to realize highest possible aperture ratio (col. 3, lines 59-67).

Allowable Subject Matter

10. Claim 12 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is an examiner's statement of reasons for allowance: none of the prior art of record fairly suggests or shows all of the limitations as claimed. Specifically,

None of the prior art of record discloses, in combination with other limitations as claimed in claim 9, an active matrix substrate comprising the signal line, the pixel electrode, and the storage capacitor common wire fabricated from a single conductive layer through patterning thereof.

The most relevant reference, USPN 5,162,933 of Kakuda et al., fails to disclose or suggest such combination. The Kakuda et al.'s reference only discloses the storage capacitor common wire being disposed parallel to the signal line so as to be connected

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to the storage capacitor electrode, wherein the storage capacitor is formed between the pixel electrode and the storage capacitor electrode, and the scanning line and the storage capacitor electrode are fabricated from a single electrode layer through patterning thereof.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thoi V. Duong whose telephone number is (571) 272-2292. The examiner can normally be reached on Monday-Friday from 8:30 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Kim, can be reached at (571) 272-2293.

Thoi Duong 

12/10/2004


TARIFUR R. CHOWDHURY
PRIMARY EXAMINER